



*Date of Application, 19th Aug., 1901--Accepted, 5th Oct., 1901*

## COMPLETE SPECIFICATION.

### Improvements in and connected with Receptacles for Containing Medicines

I, GUSTAV SCHIRMER, Physician, of 625 West Taylor Street, Chicago, Illinois, one of the United States of America, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

5 This invention relates to a medicament device for ephemeral use, in which a charge of medicine, sufficient for emergency treatment, is contained within a receptacle and a point or pencil sunk therein with its flanged end hermetically sealed to the mouth of the receptacle to act as a closure thereto and to the charge contained therein.

10 In the drawings

Figure 1 is a vertical central section through a charged and sealed receptacle embodying my invention.

Figure 2, also a vertical central section through a charged and sealed receptacle embodying an alternative form of my invention, and

15 Figures 3 to 7 represent various forms of self-loading points adapted for use with said receptacles.

At *a* in Figure 1 and also in Figure 2 are represented receptacles for the medicament. These are made of any suitable material adapted to hold the charge, but not desirably of any expensive character as both receptacle and point  
20 are expected to serve their purpose but once and then be thrown away.

The point is indicated by *b* and in both constructions shown has a flange *c* and knob or handle by which it may be manipulated. The flange practically closes the mouth of the receptacle, and after the charge has been inserted therein is hermetically sealed thereto as at *e* to preserve the contents from the deleterious  
25 action of the atmosphere, from decomposition and spilling. It serves in practice to shield the medicament from contact with the operator's fingers and may also serve as a positive stop to limit the introduction of the point into wounds. The receptacle itself is of a size adapted to be carried in the vest pocket. The seal however is liable to harden with time so that unless provision is made to disrupt it the knob is apt to be broken from the point in the effort to break the seal.  
30 For this reason, in the preferred form of my invention, shown in Figure 1, I provide the flange *c* with an upsetting annular knife edge *f* along its outer perimeter, which cuts into the seal *e* as the knob is turned and thereby readily removes it. It is obvious however that a single upstanding knife blade may be  
35 employed instead of the annular edge.

In the bottom of the receptacle of Figure 1, I place a charge *g* of dry medicament, closing it off liquid and air tight by a diaphragm insoluble to the fluid that is to be used as a solvent for the dry medicament. This diaphragm may consist of a disk *h* of innocuous material resting upon the bed of dry medicament, and a  
40 seal *i* of insoluble material, as chrom-gelatin, animal membrane, &c., or the dry medicament may be inserted in a capsule arranged to be punctured, as will be understood from the succeeding paragraph.

The receptacle in said Figure 1 is cylindrical from the mouth down for some distance; a solvent fluid *j* or complement of the dry medicament is enclosed  
45 between the diaphragm and the sealed flange of the point. When the seal is broken by the knife edge said point, with its flange, can be pushed down, being

[Price 8d.]



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guided by the cylindrical walls of the receptacle, the lower end of the point puncturing the diaphragm or capsule and admitting the solvent to the dry medicament. In a moment the lotion will be formed in pristine strength and be ready for application.

In the apparatus indicated in Figure 2 I have not shown any knife edge to disrupt the seal although one may be employed. Instead of this I have shown a groove *k* formed partly in the upper edge of the flange and partly in the mouth of the receptacle to receive sealing material which may be disrupted by a pull upon the knob. The receptacle also is filled with liquid medicament, and therefore has no diaphragm to be penetrated by a downward push of the point. Its walls consequently need not be cylindrical below the flange. Fluid medicament is apt to deteriorate or become stale from long standing I generally prefer to use it only when the demand is such that it may not have time to lose its fresh condition.

The point may be smooth, as in Figures 1 and 2 of the present drawing, but as a smooth point will not always take up sufficient medicament I prefer to form it with depressions: either longitudinal grooves *m* as indicated in Figure 3: or pockets *n* as in Figure 4; or circumferential grooves *o* as in Figure 5: spirals *p*, as in Figure 6: or diminishing annulars *q* as in Figure 7: or in any other way adapted to take and temporarily hold a maximum charge of medicament.

It is evident from the foregoing description that the receptacle will be of such limited size as to contain only the point and practically a single charge of medicament: that it will occupy very little space, and that the life of the device will be ephemeral, ending with the first use made of it, since the point cannot be used again without danger of blood poisoning unless sterilized.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is:—

1. A medicament device for ephemeral use, comprising a small receptacle containing a charge of medicament, a point sunk therein, and having a flange closing the mouth and hermetically sealed to said mouth, and a knob or other means whereby said seal may be disrupted and the pencil applied with the charge of medicament it takes up.

2. In connection with Claim 1, providing the closure flange *o* of the point with an upsetting knife edge *f* to disrupt the seal as said flange is turned.

3. In connection with Claim 1, locating a charge of dry medicament in the base of the receptacle, a fluid tight diaphragm thereabove, and a charge of liquid solvent above the diaphragm so that when the seal is broken the point may be pushed down, piercing said diaphragm to cause the commingling of the solvent and dry medicament.

4. In connection with the subject matter of Claim 1, providing the point for applying the medicament with pockets or recesses to take up a maximum quantity of medicament, a handle, and a shield between said handle and recesses to prevent the medicament from coming in contact with the fingers of the operator.

Dated this 19th day of August, 1901

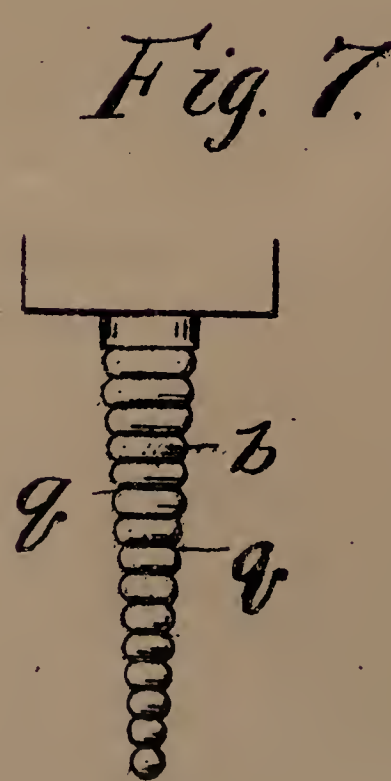
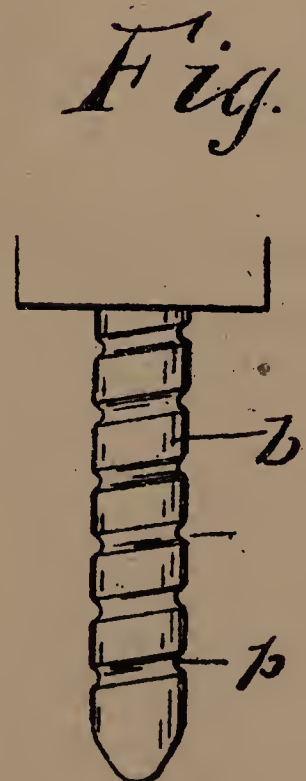
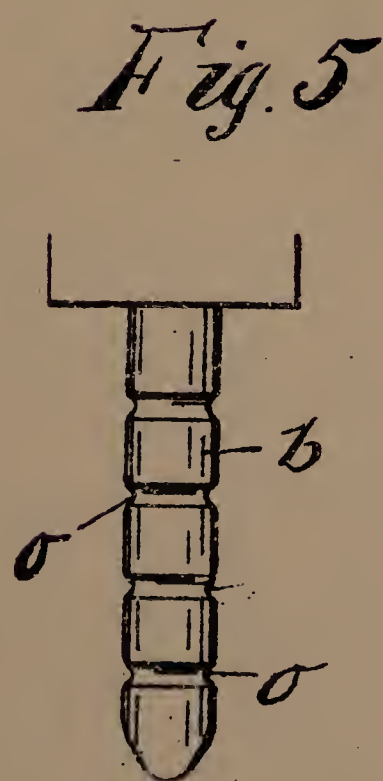
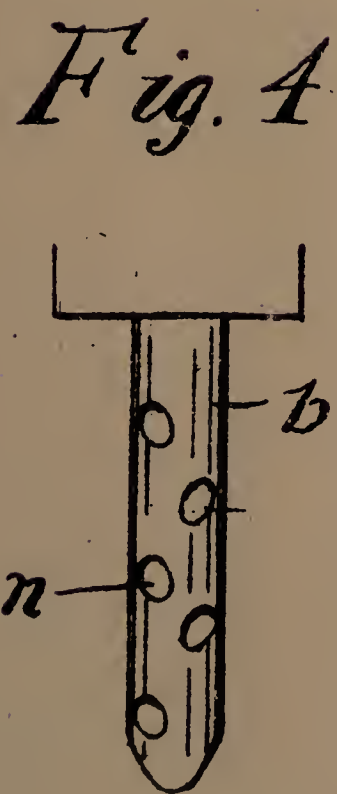
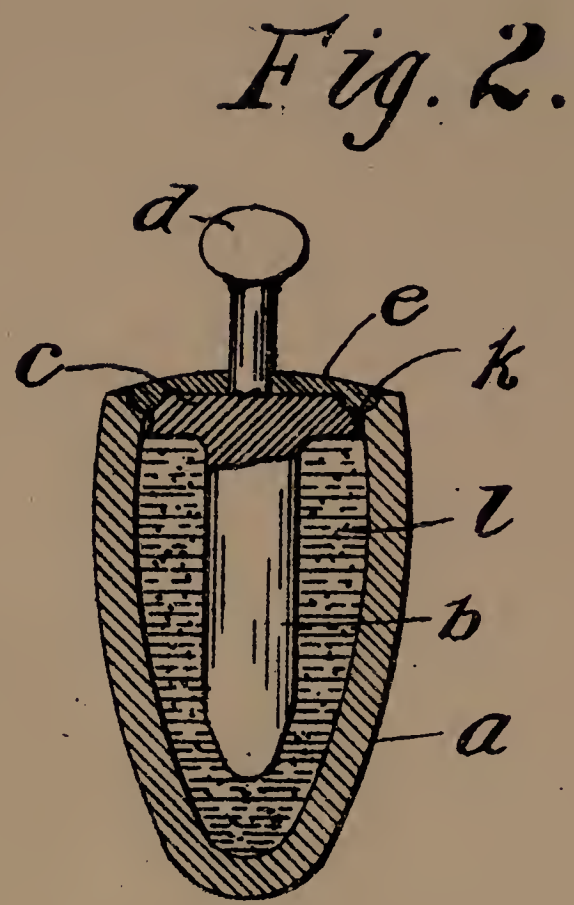
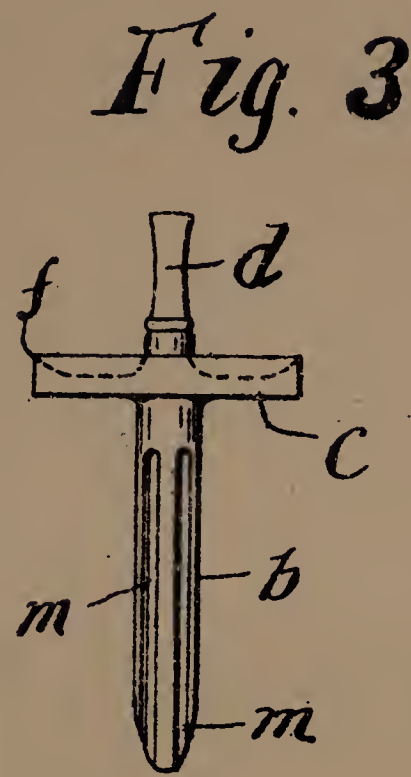
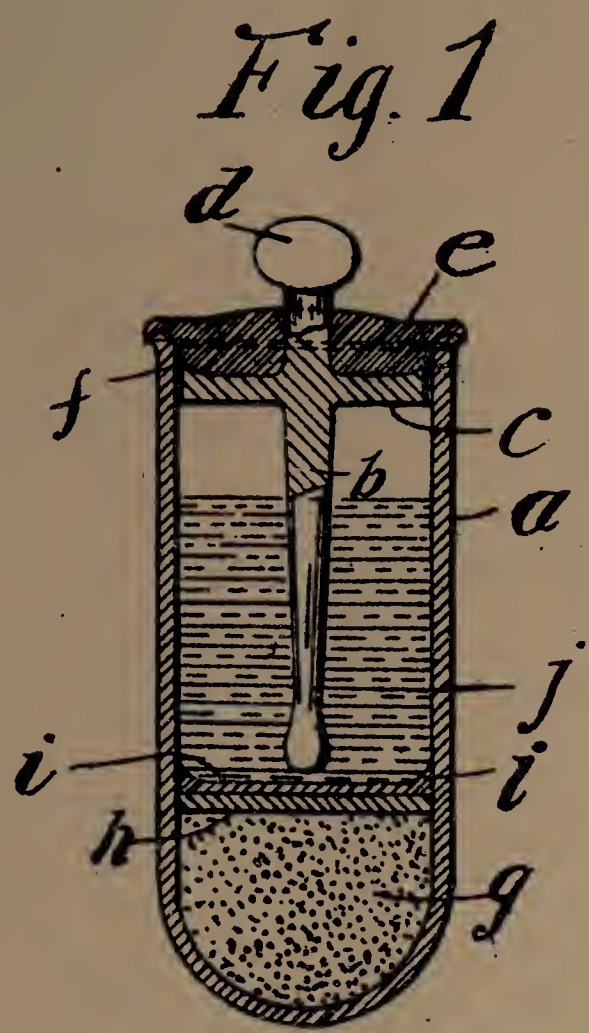
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This Drawing is a reproduction of the Original on a reduced scale.]

